## WHAT IS CLAIMED IS

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1. An image extraction method comprising: a first image pickup step to pick up an image of an object positioned in front of a background using wavelengths in a visible light region;

a second image pickup step to pick up an image of the object positioned in front of the background using wavelengths in an infrared region; and

an extracting step to extract only the object based on the images picked up by the first and second image pickup steps,

wherein at least a surface of the background is formed by an organic dye.

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2. The image extraction method as claimed in claim 1, wherein said extracting step extracts the object from the image picked up by the first image pickup step depending on color, and extracts the object from the image picked up by the second image pickup step depending on luminance.

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3. The image extraction method as claimed in claim 1, wherein said organic dye has a color selected from a group consisting of blue-green color, gold color and silver color.

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The image extraction method as claimed
The image extraction method as claim in claim 1, wherein said of cvanine organic dyes, consisting of cvanine organic dyes,
         in claim 1, wherein said organic dye is selected organic dyes, and azo organic dye is selected dyes, and azo organic dye is selected dyes, and azo organic dyes, and azo organic
                   from a group consisting of cyanine organic dyes.

from a group consisting dyes, and azo organic phthalocyanine
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                                                                                        comprising:
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                                                                                                                                                                                                                                         as an authentication result!
                                                                                                                                                                                                                                                                formed by an organic dye.
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                                                                                                                                                                                                                                                                                                                         6. The authentication apparatus as section wherein said extracting image of the object from the image claimed in claim of the image extracts
                                                                                                                                                                                                                                                                                                                                    claimed in claim 5, wherein said extracting sect; wherein said extracting image first image pickup section
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                                                                                                                                                                                                                                                                                                                                              depending on color, and extracts the image of the and extracts the image of the second image picked up by the second image picked luminance.

depending on the image picked luminance.

object from depending on luminance.
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7. The authentication apparatus as claimed in claim 5, wherein said matching section outputs the comparison result by comparing an average of the image of the object extracted by the extracting section from the image picked up by the first image pickup section and the image of the object extracted by the extracting section from the image picked up by the second image pickup section, and the registered object images.

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8. The authentication apparatus as
15 claimed in claim 5, wherein the organic dye has a
color selected from a group consisting of blue-green
color, gold color and silver color.

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9. The authentication apparatus as claimed in claim 5, wherein the organic dye is selected from a group consisting of cyanine organic dyes, phthalocyanine organic dyes, and azo organic dyes.

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